

Application No.: 09/687,734
Response dated: October 26, 2006
Reply to Office Action of: August 4, 2006

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REMARKS

Reconsideration of the present claims, in light of the Remarks which follow is respectfully requested.

Claims now before the Examiner are 1-2, 4, 6, 10-11, 14-15, 18-19, and 21-23.

Support for the amendments to claims 1, 10 and 15, may be found as follows: Page 10, lines 20-22 (activators); page 6, lines 8-14 (ligands); page 8, line 6 (Group 4 metal); and claim 7 as filed. Additionally, use of the terminology "not the equivalent of" can be found at page 5, lines 16-17 (claim 15).

The numbering in this Response will correspond to the numbering in the Examiner's action.

1. & 2. No Response Necessary

Rejections under 35 USC § 103

3.-5. *Claims 1-4, 6-19 and 21 stand Rejected under 35 USC § 103 as Obvious over US 6 180 735 (Wenzel).*

In all of the description and examples of Wenzel, as the preformed metallocene catalyst is formed, the catalyst components, save for the support, are put into solution, mixed, reacted and the solvent driven off (to drive the components into and/or onto the support), see for example: Column 17, lines 28-35 "In this preferred method, the bulky ligand metallocene-type catalyst compound is slurried in a liquid to form a metallocene solution and a separate solution is formed containing an activator and a liquid. The liquid may be any compatible solvent or other liquid capable of forming a solution or the like with the bulky ligand metallocene-type catalyst compounds and/or activator of the invention. In the most preferred embodiment the liquid is a cyclic aliphatic or aromatic hydrocarbon, most preferably toluene." Emphasis added.

The difference between this Wenzel disclosure (and Wenzel's examples) and the present claims, is that rather than using a solvent to assemble the metallocene and the

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activator (on a support), the present claims assemble the components in a mineral oil. No part of Wenzel discloses or suggests this type of catalyst preparation.

The presently amended claims call for the supported activator, the ligand and the metal compound to be brought together in the mineral oil. The mineral oil is not removed, and (in the examples) the mineral oil slurry is fed to the polymerization reactor. The Examiner states that mineral oils have been used with catalysts. The statement is only partially correct. Mineral oils are often used to convey solid catalysts (with metallocenes this is after driving the solvent off of the support, which now contains the activated metallocene catalyst) into a reactor. No evidence is of record showing use of mineral oil as the medium in which the catalyst components are combined.

With mineral oil in all claims, and mineral oil having in the neighborhood of 30 carbon atoms (Kadol® of the examples, with a molecular weight of 430) (others have somewhat higher number of carbon atoms, for example Hydrobrite® has 34 carbon atoms), mineral oil is not disclosed or suggested by Wenzel.

Therefore, the reference fails to disclose or suggest a) using mineral oil, b) not removing this hydrocarbon, c) that the hydrocarbon used has a higher number of carbon atoms than the hydrocarbons disclosed in the reference and d) the mineral oil has a negligible solvent effect on the components of the claimed catalyst (supported activator, ligand and metal compound).

For the reasons stated, Wenzel does not render Applicant's claims Obvious.
Withdrawal of the Rejection is respectfully requested

6. - 10. No response necessary.

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All of the Examiner's points have been addressed.

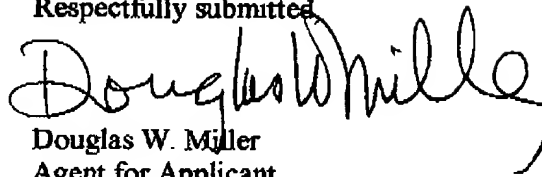
All the claims are in condition for allowance.

Note is made that the correspondence should be sent to:

Douglas W. Miller
In representation of Univation Technologies, LLC
c/o Maureen M. White
5555 San Felipe, Suite 1950
Houston, Texas 77056
Facsimile: 713.892.3687

However the telephone number for Douglas W. Miller is (409) 763-4200.

Respectfully submitted


Douglas W. Miller
Agent for Applicant
Registration No. 36,608

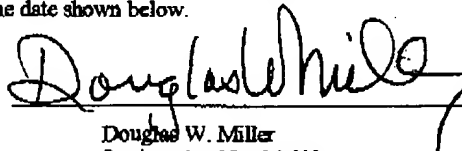
Southwest Patent Services
305 21st Street, Suite 249
Galveston, Texas 77550-1679
(409) 763-4200

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October 23, 2006

Date



Douglas W. Miller
Registration No. 36,608